

CHRYSANTHEMUM PLANT NAMED 95-157-6

Background of the Invention

The present invention comprises a new and distinctive chrysanthemum plant, hereinafter referred to by the cultivar name 95-157-6. This new cultivar was the result of a cross in 1989 between *Dendranthema weyrichii* and *Dendranthema grandiflora*. More specifically, the breeding program which resulted in the production of the new cultivar was carried out at St. Paul, Minnesota. The female or seed parent of 95-157-6 was a *Dendranthema weyrichii*, commercially available from White Flower Farms, Connecticut having the following characteristics: (a) the plant habit is prostrate and the plant spreads via rhizomes to form a large mat after the first year; (b) the plant dimensions are that the plant has a diameter of about 1.5' and is about 5-6" tall; (c) the plant is hardy in zones 4-9 (Southeast)/Zone 10 (west); (d) the flower of the plant is a single daisy, having light lavender-colored ray florets and central disc florets with yellow pollen; (e) the plant has leaves that are dark green in color, with a very shiny leaf surface (glossy), and glabrous leaf margins that are deeply incised; and (d) the plant tends to rosette, needs cold treatment to flower consistently, flowering can be sporadic with gaps in the plant architecture and the plant is an obligate short-day plant. The male or pollen parent of 95-157-6 was a *Dendranthema grandiflora* which is commercially available from Yoder Brothers, Inc., Barberton, Ohio having the following characteristics: (a) the plant habit is cushion; (b) the plant dimensions are that the plant is similar to other cushion types commercially available from Yoder Brothers, Inc., such as, but not limited to the variety, 'Shasta'; (d) the plant is hardy in zones 6-9 (Southeast)/Zone 10 (west); (d) the flower is a single or duplex daisy, possibly orange or bronze ray florets, central disc florets with yellow pollen; (e) the plant has leaves that are similar to other Yoder Brothers, Inc. cushion series chrysanthemums; and (d) the plant is a facultative short-day plant. The resulting seeds, identified as 90-287-194 were collected. In 1991, a plant of 90-

287-194 was crossed as the male parent with plants identified as 77-AM3-3, a University of Minnesota inbred parental selection, as the female parent and the resulting seeds, identified as cross number 92-279-2 were collected. In 1994, a plant of 92-279-2 was crossed as the male parent with plants of the cultivar 'Baby Tears', which is commercially available from Yoder Brothers, Inc., Barberton, Ohio, as the female parent and the resulting seeds, identified as cross number 95-157, were collected. In 1995, seedlings of the cross 95-157 were germinated and the flowering progeny evaluated. 95-157-6 was the sixth plant from the cross and was selected in the fall of 1995. The parentage of the new cultivar can be summarized as follows:

Dendranthema weyrichii x *Dendranthema grandiflora*

Asexual reproduction of the new cultivar by terminal or stem cuttings taken during 1996 through 1999 at St. Paul, Minnesota, U.S.A. has demonstrated that the characteristics of the new cultivar as herein described are firmly fixed and are retained through successive generations of such asexual propagation.

Summary of Invention

It was found that the cultivar of the present invention:

- (a) exhibits extreme hybrid vigor,
- (b) develops, in its second and subsequent years after planting, when grown in the fall under natural daylength and without the application of growth regulators, into a flowering herbaceous shrub having a plant height of from about 1.8 to about 2.25 feet and a spread from about 2.4 to about 5.0 feet,

- (c) exhibits, in its second and subsequent years after planting and during the fall season (August-October), a massive floral display,
- (d) displays flowers which are slightly toned with grey, giving the flower petals a slightly altered coloration,
- (e) exhibits superior winter hardiness, including frost tolerance, and
- (f) exhibits self-pinching.

The 95-157-6 cultivar has not been observed under all possible environmental conditions to date. Accordingly, it is possible that the phenotype may vary somewhat with variations in the environment, such as temperature, light intensity, and day length.

When the new cultivar of the present invention is compared to 'Stephanie' (U.S. Plant Patent No. 9,445), it is found to exhibit a more spreading and prolific habit accompanied with a massive floral display in its second and subsequent years after planting. Reference is made to attached Chart A which compares certain characteristics of 95-157-6 to 'Stephanie'.

Brief Description of the Photographs

The accompanying photographs show as nearly true as it is reasonably possible to make the same in color illustrations of this type, typical flower and foliage characteristics of the new cultivar. The plants were grown in a greenhouse at St. Paul, Minnesota, USA.

Figure 1 shows an adaxial and abaxial views of the leaf shape of chrysanthemum variety 95-157-6.

Figure 2 shows the breeding history of chrysanthemum variety 95-157-6.

Figure 3 is a color photograph of chrysanthemum variety 95-157-6 after one year of growth.

Figure 4 is a color photograph of chrysanthemum variety 95-157-6 after two years of growth.

Detailed Botanical Description

The chart used in the identification of colors described herein is the R.H.S. Colour Chart of The Royal Horticultural Society, London, England. The color values were determined on October 15, 1999 in St. Paul, Minnesota. The readings were taken between 1:30 and 2:00 p.m. under approximately 2500 footcandles of light. The plants were produced from cuttings taken from stock plants and were grown under greenhouse conditions comparable to those used in commercial practice while utilizing a soilless growth medium and maintaining temperatures of approximately 72°F during the day and approximately 65°F during the night.

Propagation

Type	Herbaceous stem cutting
Time to rooting	About 1 week
Rooting habit	Vigorous

Botanical Classification

Dendranthema x hybrida

Commercial Classification

Chrysanthemum hybrid

Plant Description

Appearance, shape	Spherical mound
Appearance, growth habit	Cushion
Appearance, growth rate/vigor	Vigorous

Plant height

about 18 to about 19 inches (first year)
about 1.8 to about 2.25 feet (second year)

Lateral branch length

1 to 2.5 feet

Quantity of lateral branches after removal
of apical meristem

One per node

Stem color

RHS Paris Green 58/1

Foliage Description

Number of leaves per plant

Greater than 8,000 (second year)

Number of leaves per lateral branch

5 to 20

Leaf arrangement

Alternate

Leaf size, fully expanded, length

7.8 cm

Leaf size, fully expanded, width

4.8 cm

Leaf apex

Mucronulate

Leaf base

Cuneate

Leaf margin

Incised (Mulberry-like incisions)

Leaf texture

Mildly hirsute

Petiole length

2.2 cm

Color, young foliage adaxial surface

RHS Scheeles Green 860/2

Color, young foliage abaxial surface

RHS Spinach Green o960/2

Color, fully expanded foliage adaxial surface

RHS Spinach Green o960

Color, fully expanded foliage abaxial surface

RHS Spinach Green o960/1 to

RHS Spinach Green o960/3

Color, venation adaxial surface

RHS Spinach Green o960/2

Color, venation abaxial surface

RHS Spinach Green o960/3

Color, petiole

RHS Scheeles Green 860/1

Inflorescence Description

Appearance

Head (composite), pentaplex daisy

Flowering response

About 6 weeks (SD)

Quantity of inflorescences

About 1000 (first year)

Inflorescence size, diameter	About 3,000 (second year)
Inflorescence size, depth (height)	7.1 cm
Inflorescence size, diameter of disc	3.4 cm
Opening inflorescences, bud shape	1.0 cm
Opening inflorescences, bud size, length	Dome shaped to upright tubular
Opening inflorescences, bud size, width	0.6 cm
Opening inflorescences, bud color	0.7 cm
Ray florets, shape	RHS Creamy White
Ray florets, size, length	Linear lanceolate
Ray florets, size, width	2.7 cm
Ray florets, apex	0.6 cm
Ray florets, base	Retuse
Ray florets, margin	Attenuate
Ray florets, texture	Entire
Ray florets, aspect	Glabrous
	From about 45° vertical to slightly pendant
	45°
Number of ray florets per inflorescence	About 119
Ray florets, color, when opening, adaxial surface	RHS Sap Green 62/3
Ray florets, color, when opening, abaxial surface	RHS Uranium Green 63/3
Ray florets, color, mature, adaxial surface	RHS White
Ray florets, color, mature, abaxial surface	RHS White
Ray florets, color, fading to	RHS White
Disc florets, shape	Tubular, rounded at tip
Disc florets, size, length	0.7 cm
Disc florets, size, width	0.2 cm
Number of disc florets per inflorescence	About 100
Disc florets, color, immature	RHS Straw Yellow 604
Disc florets, color, mature	RHS Chinese Yellow 606
Peduncle, aspect, strength	Stiff
Peduncle, aspect, angle to stem	45°

Peduncle, length, first peduncle

3 cm

Peduncle, length, fourth peduncle

4.6 cm

Peduncle, texture

Mildly hirsute

Peduncle, color

RHS Viridian Green 55/3

Reproductive organs, androecium, floret location

Disc florets

Anther color

RHS Canary Yellow 2/1

Pollen, abundance

Abundant

Pollen, color

RHS Buttercup Yellow 5

Reproductive organs, gynoecium, floret location

Disc/ray florets

Style color

RHS Buttercup Yellow 5/2

Disease Resistance

None Known

Seed Production

About 219 ovules/flower

Winter Hardiness

Hardy in zones 3-10 in uncovered field conditions without the need for added protection such as snow fences, mulch, etc.

Frost Tolerance

Yes, extends blooming season to the first freeze in the north (In zones 3-4 the first frost usually takes place between September 1-15. In zones 3-4, the first freeze usually takes place between October 1-20).